

Laboratory Health Information Technology (LabHIT)

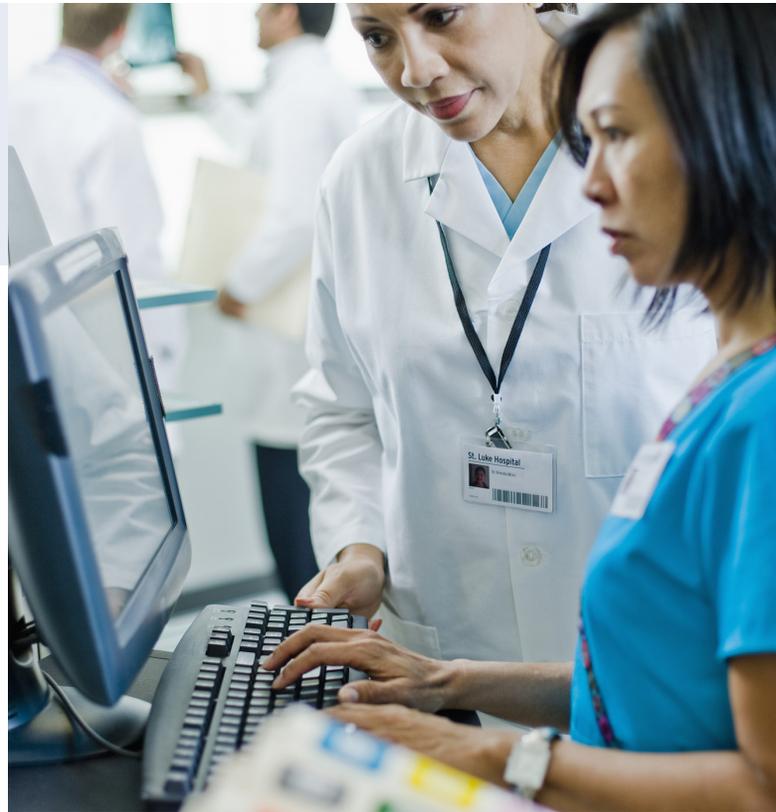
Our activities help put federal policies, international standards, and national certifications in place to make sure laboratory test results are incorporated into **electronic health records (EHRs)** in ways that are useful for healthcare providers and safe and effective for patients.

Our Work

- Engage laboratory professionals and other stakeholders in developing national **standards, policies, and certification requirements** for EHRs and health information technology (health IT).
- Support **interoperable** health IT standards.
- Promote **patient safety** through health IT assessment, reporting and monitoring, and usability guidance.
- Participate in **federal rulemaking** to ensure that safe and effective use of laboratory information is incorporated into regulatory standards and guidelines.

Our Expertise

- Provide **subject matter expertise** to the Office of the National Coordinator for Health Information Technology (ONC) and HL7 on the Clinical Laboratory Improvement Amendments of 1988 (CLIA), accreditation standards, and laboratory practices.
- Harmonize **laboratory codes** for test names and test results (LOINC, SNOMED CT, UCUM) to enable meaningful comparison of results nationwide and worldwide.
- Monitor federal databases, such as FDA MAUDE, for health IT-related **patient safety events**.
- Provide **resources for laboratory professionals** on health IT activities through a website and subscriber e-mail updates.



Our **partners and stakeholders** include

- Federal agencies
- Standards organizations
- Accreditors
- Commercial laboratories
- Hospital laboratories
- Test system manufacturers
- Professional organizations
- Armed Forces Health Services, Airforce TRICARE, Defense Health Agency
- EHR and laboratory information system (LIS) software developers
- Institute of Medicine (IOM) Action Collaborative
- Houston VA Health Services Research & Development Center of Innovation.

Our National Impact

- **Laboratory services are a critical component of health IT.** To make sure patients receive the best care, healthcare providers need to get accurate results from their laboratory tests quickly and easily. If EHRs don't show the patient's latest laboratory results in a way that's easy to access and understand, diagnoses may be misinterpreted and patients may not get the treatment they need—potentially leading to patient harm or even death. Our work helps ensure the availability of laboratory information in health care.
- **We communicate the value of laboratory health IT.** Our **website** provides information and guidance for laboratory and health IT experts on the exchange of test results between the EHRs and LIS to support patient safety. **Our May 2014 white paper, "The Essential Role of Laboratory Professionals,"** encourages these professionals to get involved in developing health IT policies. Through research and case studies, we show the seriousness of laboratory data-related interoperability issues, display discrepancies between the LIS and EHR systems, and propose focus areas for action by laboratory professionals to help resolve these issues.
- **Our work bridges gaps and encourages collaboration.** We work with teams and initiatives across CDC and other federal agencies to provide subject matter expertise and build consensus on topics such as the development of standardized vocabulary, semantic operability of laboratory test coding, certification of EHR modules, inclusion of CLIA regulations, and laboratory accreditation standards.

Unconventional Results Display: Delayed Diagnosis and Treatment

A young woman's **abnormal Pap smear results** went undetected for 4 years because of a usability issue with her physician's EHR system. Due to a default setting, the system showed the physician the patient's previously normal laboratory result, and the more recent abnormal result went unnoticed.

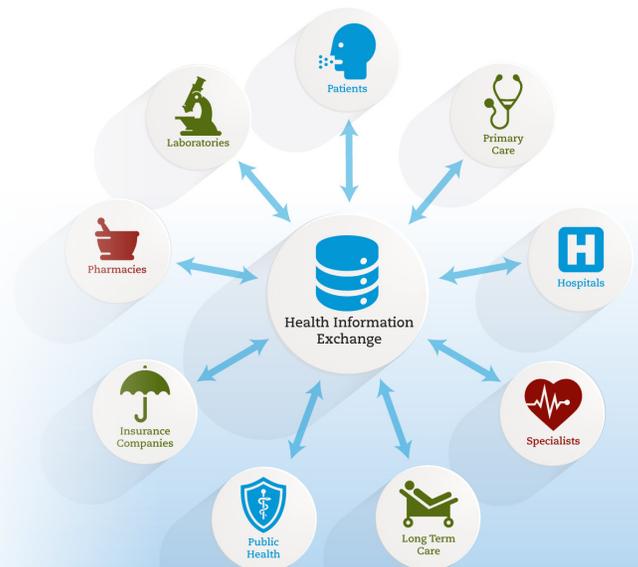
The young woman's advanced cervical cancer was only detected when she sought treatment for other symptoms that had developed. As a result of the delay in diagnosis and treatment, the young woman had a hysterectomy.

The LabHIT team is working with other federal agencies and its partners in the laboratory and health IT communities to ensure **preventable errors** like this do not occur.

Source: Sawchuk M, Linville M, Cornish N, Pollock A, Lubin I, Gagnon M, et al. The essential role of laboratory professionals: ensuring the safety and effectiveness of laboratory data in electronic health record systems. Atlanta, GA: Center for Surveillance, Epidemiology, and Laboratory Services, Centers for Disease Control and Prevention; 2014.

Health Information Exchange in the Healthcare System

Without a robust health information exchange infrastructure, preventable errors like the one identified in the story above could continue to go unnoticed, leading to patient harm.



Find more information on LabHIT activities

www.cdc.gov/labhit

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